

**CBE, Sierra Club, Center, ForestEthics et al. Comments on the Revised Draft
Environmental Impact Report for the Phillips 66 Company Rail Spur Extension and Crude
Unloading Project**

ATTACHMENT C7

**Attachments to Expert Report of Phyllis Fox on the Revised Draft Environmental Impact
Report for the Phillips 66 Rail Spur Extension and Crude Unloading Project, November
2014.**

from: dgcarlson_apcd@co.slo.ca.us

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Information request

Inbox x



dgcarlson_apcd@co.slo.ca.us

to me

We are working on your request and hope to supply the data before the day is over.

I got a little more understanding of the reported throughput data. P66 does run the total facility annual crude through each of the 3 crude tanks - for water separation in stages. We are working to total the gas oil and pressure distillate output for the last 5 years. It should be what was listed on the rawdata tab of the inventory spreadsheet. Gas oil and PD are not run through multiple tanks.

[Scanned @[co.slo.ca.us](#)]



Phyllis Fox <phyllisfox@gmail.com>

to Dean

Thanks!



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SMR Questions

Inbox x

Phyllis Fox

I've studied the material you sent and have a few questions: (1) Is any porti...

12:49

dgcarlson_apcd@co.slo.ca.us

to me

9:34 AM (1 hour ago)

1) We don't have permits associated with the pipeline that may have been issued by other agencies. To keep a fluid moving pressure losses from friction would have to be overcome, so yes there are likely other pump stations along the route.

2) I don't see any SIP Rule 407.S.2 references. There are several SIP Rule 407.A.2 references - I assume that is what you mean. An older version of our Rule 407, Organic Material Emission Standards - can be reviewed at EPA's website. A.2 required a vapor recovery system for tanks > 40k gal capacity storing gasoline and pressure distillate. Our Rule 425 Storage of Volatile Organic Compounds is more current.

3) The basis is Rule 425: Section D.3 limit is 1.5 psia for tanks 20k gal < capacity < 40k gal and Section D.4 specifies a 0.5 psia limit for capacity > 40k gal

4) A PTO condition allows the APCO to test any stored material, but there is no requirement for annual vapor pressure tests. As you can see from the production data I previously sent, this facility has a fairly steady state operation year to year and the tested pressures are well below any applicable limit.

5) P66 changed their operations to reduce off-loading at pump stations a few years back. Creston and Summit were no longer needed, and the others are primarily used to push the material along.

From: Phyllis Fox <phyllisfox@gmail.com>

To: Dean Carlson <dgcarlson_apcd@co.slo.ca.us>

Date: 11/21/2014 12:49 AM

Subject: SMR Questions

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3) The basis is Rule 425: Section D.3 limit is 1.5 psia for tanks 20k gal < capacity < 40k gal and Section D.4 specifies a 0.5 psia limit for capacity > 40k gal

The gas oil tanks have a reported capacity of 52,000 bbl. Thus, their vapor pressure limit would be 0.5 psia. However, Section C, Exemptions, states liquids with a tvp of <0.5 psia are exempt from Rule 425. The data you sent me yesterday shows these tanks store material with TVP <0.5 psia. Thus, tl no vapor pressure limits and are exempt from Rule 425, right?

dgcarlson_apcd@co.slo.ca.us

2:16 PM (10 minutes ago)

to me

You are mixing up some of the data. The gas oil tanks have a capacity of 76,500 bbls each, and the pressure distillate tanks have a capacity of 52,000 bbls each. Gas oil has a very low vapor pressure, and yes you are right that those tanks would not technically be subject to Rule 425. However we do have a new source review Rule 204 and it looks like maybe in the past someone subjected those tanks to some of the Rule 425 requirements as RACT. I say that because Condition III.E.1a (page 66) lists floating roof tank seal specifications of Rule 425, and says they are applicable to the gas oil tanks under District Rule 206, Conditional Approval. That indicates that the permit holder accepted those conditions in a previous permit. If the vapor pressure of gas oil exceeded 0.5 psia then the Tanks would be in violation of Rule 425 - requires double seals for that pressure. So 0.5 psia is the effective limit.

Pressure distillate is the high vapor pressure material. Your referenced SIP Rule requires a vapor recovery control system and that is what those tanks are equipped with.

From: Phyllis Fox <phyllisfox@gmail.com>

To: Dean Carlson <dgcarlson_apcd@co.slo.ca.us>

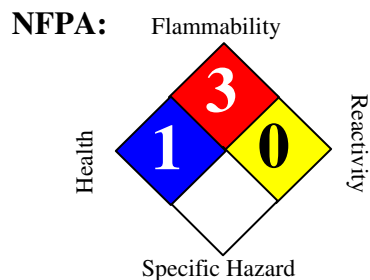
Date: 11/21/2014 12:19 PM

Subject: Re: SMR Questions

[Scanned @co.slo.ca.us]

Material Safety Data Sheet

Naphtha



HMIS III:

| | |
|--------------|---|
| HEALTH | 1 |
| FLAMMABILITY | 3 |
| PHYSICAL | 0 |

0 = Insignificant, 1 = Slight, 2 = Moderate, 3 = High, 4 = Extreme

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

| | | | | | |
|-------------------------|---|---|---------------------------------|---|----------------|
| Product name | : | Naphtha | | | |
| Synonyms | : | Light Naphtha, Japan Open Spec Bonded Naphtha, SNG Naphtha, Light Cat Naphtha, Sweet Virgin Naphtha (SVN), Debutanized Naphtha, Atmospheric Naphtha (DAN), HCU Light Naphtha, Light CR Gasoline, Full Range Cracked Naphtha, Full Range Hydrocracked Naphtha, Full Range Reformulated Naphtha, Light Chemical Treated Naphtha, Light Cracked Naphtha, Light Hydrocracked Naphtha, Light Hydrotreated Naphtha, Aviation Alkylate Naphtha, 888100004450 | | | |
| MSDS Number | : | 888100004450 | Version | : | 2.12 |
| Product Use Description | : | Fuel Component, Refinery Intermediate Stream | | | |
| Company | : | For: Tesoro Refining & Marketing Co. 19100 Ridgewood Parkway, San Antonio, TX 78259 | | | |
| Tesoro Call Center | : | (877) 783-7676 | Chemtrec (Emergency Contact) | : | (800) 424-9300 |

SECTION 2. HAZARDS IDENTIFICATION

Emergency Overview

| | |
|--------------------------|---|
| Regulatory status | : This material is considered hazardous by the Occupational Safety and Health Administration (OSHA) Hazard Communication Standard (29 CFR 1910.1200). |
| Signal Word | : DANGER |
| Hazard Summary | : Extremely flammable. Irritating to eyes and respiratory system. Affects central nervous system. Harmful or fatal if swallowed. Aspiration Hazard. |

Potential Health Effects

| | |
|-------------------|---|
| Eyes | : High vapor concentration or contact may cause irritation and discomfort. |
| Skin | : Brief contact may cause slight irritation. Skin irritation leading to dermatitis may occur upon prolonged or repeated contact. Can be absorbed through skin. |
| Ingestion | : Aspiration hazard if liquid is inhaled into lungs, particularly from vomiting after ingestion. Aspiration may result in chemical pneumonia, severe lung damage, respiratory failure and even death. |
| Inhalation | : Vapors or mists from this material can irritate the nose, throat, and lungs, and can cause signs and symptoms of central nervous system depression, depending on the concentration and duration of exposure. Inhalation of high concentrations may cause central nervous system depression such as dizziness, |

drowsiness, headache, and similar narcotic symptoms, but no long-term effects.

Chronic Exposure

: Long-term exposure may cause effects to specific organs, such as to the liver, kidneys, blood, nervous system, and skin. Contains benzene, which can cause blood disease, including anemia and leukemia.

Target Organs

: Skin, Central nervous system, Liver, Kidney, Blood

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

| Component | CAS-No. | Weight % |
|------------------------------------|-----------|------------|
| Naphtha; Low boiling point naphtha | 8030-30-6 | 100% |
| N-hexane | 110-54-3 | 25 - 35% |
| Xylene | 1330-20-7 | 25 - 35% |
| Toluene | 108-88-3 | 15 - 20% |
| Cyclohexane | 110-82-7 | 15 - 20% |
| Pentane | 109-66-0 | 15 - 20% |
| Heptane [and isomers] | 142-82-5 | 12.5 - 15% |
| Ethylbenzene | 100-41-4 | 5 - 7% |
| Benzene | 71-43-2 | 3 - 5% |
| 1,2,4-Trimethylbenzene | 95-63-6 | 2 - 3% |
| Sulfur | 7704-34-9 | 0 - 1.5% |

SECTION 4. FIRST AID MEASURES
General advice

: Remove from exposure, lie down. In the case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). When symptoms persist or in all cases of doubt, seek medical advice. Never give anything by mouth to an unconscious person. Take off all contaminated clothing immediately and thoroughly wash material from skin.

Inhalation

: If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Seek medical attention immediately.

Skin contact

: In case of contact, immediately flush skin with plenty of water. Take off contaminated clothing and shoes immediately. Wash contaminated clothing before re-use. Contaminated leather, particularly footwear, must be discarded. Note that contaminated clothing may be a fire hazard. Seek medical advice if symptoms persist or develop.

Eye contact

: Remove contact lenses. In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

Ingestion

: If swallowed Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Seek medical attention immediately.

Notes to physician : Symptoms: Dizziness, Discomfort, Headache, Nausea, Kidney disorders, Liver disorders.

SECTION 5. FIRE-FIGHTING MEASURES

| | |
|---|--|
| Form | : Liquid |
| Flash point -typical | : -21.7 °C (-7.1 °F) |
| Auto Ignition temperature | : 225 °C (437 °F) |
| Lower explosive limit | : 1.2 %(V) |
| Upper explosive limit | : 6.9 % (V) |
| Suitable extinguishing media | : Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. Do not use a solid water stream as it may scatter and spread fire. |
| Specific hazards during fire fighting | : SMALL FIRES: Any extinguisher suitable for Class B fires, dry chemical, CO ₂ , water spray, fire fighting foam, or Halon. LARGE FIRES: Water spray, fog or fire fighting foam. Water may be ineffective for fighting the fire, but may be used to cool fire-exposed containers. |
| Special protective equipment for fire-fighters | : Fire fighters should wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear. Firefighters' protective clothing will provide limited protection. |
| Further information | : Isolate area around container involved in fire. Cool tanks, shells, and containers exposed to fire and excessive heat with water. For massive fires the use of unmanned hose holders or monitor nozzles may be advantageous to further minimize personnel exposure. Major fires may require withdrawal, allowing the tank to burn. Large storage tank fires typically require specially trained personnel and equipment to extinguish the fire, often including the need for properly applied fire fighting foam. Exposure to decomposition products may be a hazard to health. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Use water spray to cool unopened containers. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. |

SECTION 6. ACCIDENTAL RELEASE MEASURES

| | |
|----------------------------------|--|
| Personal precautions | : Evacuate personnel to safe areas. Ventilate the area. Remove all sources of ignition. Response and clean-up crews must be properly trained and must utilize proper protective equipment (see Section 8). |
| Environmental precautions | : Should not be released into the environment. Avoid subsoil penetration. If the product contaminates rivers and lakes or drains, inform respective authorities. |
| Methods for cleaning up | : Contain and collect spillage with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations. |

SECTION 7. HANDLING AND STORAGE

| | |
|-----------------|--|
| Handling | : Keep away from fire, sparks and heated surfaces. No smoking near areas where material is stored or handled. The product should only be stored and handled in |
|-----------------|--|

| | |
|--|--|
| | areas with intrinsically safe electrical classification. |
| Advice on protection against fire and explosion | : Hydrocarbon liquids including this product can act as a non-conductive flammable liquid (or static accumulators), and may form ignitable vapor-air mixtures in storage tanks or other containers. Precautions to prevent static-initiated fire or explosion during transfer, storage or handling, include but are not limited to these examples: <ol style="list-style-type: none"> (1) Ground and bond containers during product transfers. Grounding and bonding may not be adequate protection to prevent ignition or explosion of hydrocarbon liquids and vapors that are static accumulators. (2) Special slow load procedures for "switch loading" must be followed to avoid the static ignition hazard that can exist when higher flash point material (such as fuel oil or diesel) is loaded into tanks previously containing low flash point products (such as gasoline or naphtha). (3) Storage tank level floats must be effectively bonded. For more information on precautions to prevent static-initiated fire or explosion, see NFPA 77, Recommended Practice on Static Electricity (2007), and API Recommended Practice 2003, Protection Against Ignitions Arising Out of Static, Lightning, and Stray Currents (2008). |
| Dust explosion class | : Not applicable |
| Requirements for storage areas and containers | : Keep away from flame, sparks, excessive temperatures and open flame. Use approved containers. Keep containers closed and clearly labeled. Empty or partially full product containers or vessels may contain explosive vapors. Do not pressurize, cut, heat, weld or expose containers to sources of ignition. Store in a well-ventilated area. The storage area should comply with NFPA 30 "Flammable and Combustible Liquid Code". The cleaning of tanks previously containing this product should follow API Recommended Practice (RP) 2013 "Cleaning Mobile Tanks In Flammable and Combustible Liquid Service" and API RP 2015 "Cleaning Petroleum Storage Tanks". |
| Advice on common storage | : Keep away from food, drink and animal feed. Incompatible with oxidizing agents. Incompatible with acids. |
| Other data | : No decomposition if stored and applied as directed. |

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines

| List | Components | CAS-No. | Type: | Value |
|----------------|------------------------------------|-----------|---------|------------------------|
| OSHA | Benzene - 29 CFR 1910.1028 | 71-43-2 | TWA | 1 ppm |
| | | 71-43-2 | STEL | 5 ppm |
| | | 71-43-2 | OSHA_AL | 0.5 ppm |
| OSHA Z1 | Naphtha; Low boiling point naphtha | 8030-30-6 | PEL | 100 ppm 400 mg/m3 |
| | Xylene | 1330-20-7 | PEL | 100 ppm 435 mg/m3 |
| | N-hexane | 110-54-3 | PEL | 500 ppm 1,800 mg/m3 |
| | Cyclohexane | 110-82-7 | PEL | 300 ppm 1,050 mg/m3 |
| | Heptane [and isomers] | 142-82-5 | PEL | 500 ppm 2,000 mg/m3 |
| | Ethylbenzene | 100-41-4 | PEL | 100 ppm 435 mg/m3 |
| ACGIH | Naphtha; Low boiling point naphtha | 8030-30-6 | TWA | 400 ppm |

| | | | | |
|--|-----------------------|-----------|------|---------|
| | Xylene | 1330-20-7 | TWA | 100 ppm |
| | | 1330-20-7 | STEL | 150 ppm |
| | N-hexane | 110-54-3 | TWA | 50 ppm |
| | Toluene | 108-88-3 | TWA | 50 ppm |
| | Cyclohexane | 110-82-7 | TWA | 100 ppm |
| | Pentane | 109-66-0 | TWA | 600 ppm |
| | Heptane [and isomers] | 142-82-5 | TWA | 400 ppm |
| | | 142-82-5 | STEL | 500 ppm |
| | Ethylbenzene | 100-41-4 | TWA | 100 ppm |
| | | 100-41-4 | STEL | 125 ppm |
| | Benzene | 71-43-2 | TWA | 0.5 ppm |
| | | 71-43-2 | STEL | 2.5 ppm |

| | |
|---------------------------------|--|
| Engineering measures | : Use adequate ventilation to keep gas and vapor concentrations of this product below occupational exposure and flammability limits, particularly in confined spaces. Use only intrinsically safe electrical equipment approved for use in classified areas. |
| Eye protection | : Safety glasses or goggles are recommended where there is a possibility of splashing or spraying. Ensure that eyewash stations and safety showers are close to the workstation location. |
| Hand protection | : Gloves constructed of nitrile or neoprene are recommended. Consult manufacturer specifications for further information. |
| Skin and body protection | : If needed to prevent skin contact, chemical protective clothing such as of DuPont TyChem®, Saranex or equivalent recommended based on degree of exposure. The resistance of specific material may vary from product to product as well as with degree of exposure. |
| Respiratory protection | : A NIOSH/ MSHA-approved air-purifying respirator with organic vapor cartridges or canister may be permissible under certain circumstances where airborne concentrations are or may be expected to exceed exposure limits or for odor or irritation. Protection provided by air-purifying respirators is limited. Refer to OSHA 29 CFR 1910.134, ANSI Z88.2-1992, NIOSH Respirator Decision Logic, and the manufacturer for additional guidance on respiratory protection selection. Use a NIOSH/ MSHA-approved positive-pressure supplied-air respirator if there is a potential for uncontrolled release, exposure levels are not known, in oxygen-deficient atmospheres, or any other circumstance where an air-purifying respirator may not provide adequate protection. |
| Work / Hygiene practices | : Emergency eye wash capability should be available in the near proximity to operations presenting a potential splash exposure. Use good personal hygiene practices. Avoid repeated and/or prolonged skin exposure. Wash hands before eating, drinking, smoking, or using toilet facilities. Do not use as a cleaning solvent on the skin. Do not use solvents or harsh abrasive skin cleaners for washing this product from exposed skin areas. Waterless hand cleaners are effective. Promptly remove contaminated clothing and launder before reuse. Use care when laundering to prevent the formation of flammable vapors which could ignite via washer or dryer. Consider the need to discard contaminated leather shoes and gloves. |

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

| | |
|----------------------------------|---|
| Form | : Liquid |
| Appearance | : Colorless to light yellow |
| Odor | : Characteristic hydrocarbon-like |
| Flash point - typical | : -21.7 °C (-7.1 °F) |
| Auto Ignition temperature | : 225 °C (437 °F) |
| Thermal decomposition | : Heating can release hazardous gases, No decomposition if stored and applied as directed. |
| Lower explosive limit | : 1.2 % (V) |
| Upper explosive limit | : 6.9 % (V) |
| pH | : Not applicable |
| Specific gravity | : 0.77 (H2O=1) |
| Boiling point | : 26.7 - 148.9 °C(80.1 - 300.0 °F) |
| Vapor Pressure | : 758 - 896 hPa at 20 °C (68 °F) |
| Vapor Density (Air = 1) | : 3.5 |
| Water solubility | : Negligible |
| Viscosity, kinematic | : Not determined |
| Percent Volatiles | : 100 % |
| Work / Hygiene practices | Emergency eye wash capability should be available in the near proximity to operations presenting a potential splash exposure. Use good personal hygiene practices. Avoid repeated and/or prolonged skin exposure. Wash hands before eating, drinking, smoking, or using toilet facilities. Do not use as a cleaning solvent on the skin. Do not use solvents or harsh abrasive skin cleaners for washing this product from exposed skin areas. Waterless hand cleaners are effective. Promptly remove contaminated clothing and launder before reuse. Use care when laundering to prevent the formation of flammable vapors which could ignite via washer or dryer. Consider the need to discard contaminated leather shoes and gloves. |

SECTION 10. STABILITY AND REACTIVITY

| | |
|---|---|
| Conditions to avoid | : Avoid high temperatures, open flames, sparks, welding, smoking and other ignition sources. |
| Materials to avoid | : Strong acids and strong bases. Oxidizing agents. |
| Hazardous decomposition products | : Carbon monoxide, carbon dioxide and noncombusted hydrocarbons (smoke). |
| Thermal decomposition | : Heating can release hazardous gases. No decomposition if stored and applied as directed. |
| Hazardous reactions | : Vapors may form explosive mixture with air. Hazardous polymerization does not occur. Note: Stable under recommended storage conditions. |

SECTION 11. TOXICOLOGICAL INFORMATION**Carcinogenicity**

| | |
|----------------------------|---|
| NTP | : Benzene (CAS-No.: 71-43-2) |
| IARC | : Ethylbenzene (CAS-No.: 100-41-4) Benzene (CAS-No.: 71-43-2) |
| OSHA | : Benzene (CAS-No.: 71-43-2) |
| CA Prop 65 | : WARNING! This product contains a chemical known to the State of California to cause cancer. Ethylbenzene (CAS-No.: 100-41-4) Benzene (CAS-No.: 71-43-2) : WARNING! This product contains a chemical known to the State of California to cause birth defects or other reproductive harm. Toluene (CAS-No.: 108-88-3) Benzene (CAS-No.: 71-43-2) |
| Skin irritation | : Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in desiccation of the skin. The product may be absorbed through the skin. |
| Eye irritation | : The liquid splashed in the eyes may cause irritation and reversible damage. Strong lachrymation can make it difficult to escape |
| Further information | : This product contains benzene. Human health studies indicate that prolonged and/or repeated overexposure to benzene may cause damage to the blood-forming system (particularly bone marrow), and serious blood disorders such as aplastic anemia and leukemia. Benzene is listed as a human carcinogen by the NTP, IARC, OSHA and ACGIH. Acute toxicity of benzene results primarily from depression of the central nervous system (CNS). Inhalation of concentrations over 50 ppm can produce headache, lassitude, weariness, dizziness, drowsiness, or excitation. Exposure to very high levels can result in unconsciousness and death. Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting. Ingestion may cause gastrointestinal disturbances, including irritation, nausea, vomiting and diarrhea, and central nervous (brain) effects similar to alcohol intoxication. In severe cases, tremors, convulsions, loss of consciousness, coma, respiratory arrest and death may occur. |

Component:

| | | |
|-------------|-----------|--|
| N-hexane | 110-54-3 | <p><u>Acute oral toxicity:</u> LD50 rat Dose: 25,000 mg/kg</p> <p><u>Acute dermal toxicity:</u> LD50 rabbit Dose: 2,001 mg/kg</p> <p><u>Acute inhalation toxicity:</u> LC50 rat Dose: 171.6 mg/l Exposure time: 4 h</p> <p><u>Skin irritation:</u> Classification: Irritating to skin. Result: Skin irritation</p> <p><u>Eye irritation:</u> Classification: Irritating to eyes. Result: Mild eye irritation</p> <p><u>Teratogenicity:</u> N11.00418960</p> |
| Xylene | 1330-20-7 | <p><u>Acute oral toxicity:</u> LD50 rat Dose: 2,840 mg/kg</p> <p><u>Acute dermal toxicity:</u> LD50 rabbit Dose: ca. 4,500 mg/kg</p> <p><u>Acute inhalation toxicity:</u> LC50 rat Dose: 6,350 mg/l Exposure time: 4 h</p> <p><u>Skin irritation:</u> Classification: Irritating to skin. Result: Mild skin irritation Repeated or prolonged exposure may cause skin irritation and dermatitis, due to degreasing properties of the product.</p> <p><u>Eye irritation:</u> Classification: Irritating to eyes. Result: Mild eye irritation</p> |
| Toluene | 108-88-3 | <p><u>Acute oral toxicity:</u> LD50 rat Dose: 636 mg/kg</p> <p><u>Acute dermal toxicity:</u> LD50 rabbit Dose: 12,124 mg/kg</p> <p><u>Acute inhalation toxicity:</u> LC50 rat Dose: 49 mg/l Exposure time: 4 h</p> <p><u>Skin irritation:</u> Classification: Irritating to skin. Result: Mild skin irritation Prolonged skin contact may defat the skin and produce dermatitis.</p> <p><u>Eye irritation:</u> Classification: Irritating to eyes. Result: Mild eye irritation</p> |
| Cyclohexane | 110-82-7 | <p><u>Acute dermal toxicity:</u> LD50 rabbit Dose: 2,001 mg/kg</p> <p><u>Acute inhalation toxicity:</u> LC50 rat Dose: 14 mg/l Exposure time: 4 h</p> <p><u>Skin irritation:</u> Classification: Irritating to skin. Result: Skin irritation</p> <p><u>Eye irritation:</u> Classification: Irritating to eyes. Result: Mild eye irritation</p> |
| Pentane | 109-66-0 | <p><u>Acute oral toxicity:</u> LD50 rat Dose: 2,001 mg/kg</p> <p><u>Acute inhalation toxicity:</u> LC50 rat</p> |

Dose: 364 mg/l
Exposure time: 4 h

Skin irritation: Repeated or prolonged exposure may cause skin irritation and dermatitis, due to degreasing properties of the product.

Eye irritation: Classification: Irritating to eyes.
Result: Mild eye irritation

Heptane [and isomers] 142-82-5

Acute oral toxicity: LD50 rat
Dose: 15,001 mg/kg

Acute inhalation toxicity: LC50 rat
Dose: 103 g/m3
Exposure time: 4 h

Skin irritation: Classification: Irritating to skin.
Result: Skin irritation
Repeated or prolonged exposure may cause skin irritation and dermatitis, due to degreasing properties of the product.

Eye irritation: Classification: Irritating to eyes.
Result: Mild eye irritation

Ethylbenzene 100-41-4

Acute oral toxicity: LD50 rat
Dose: 3,500 mg/kg

Acute dermal toxicity: LD50 rabbit
Dose: 15,500 mg/kg

Acute inhalation toxicity: LC50 rat
Dose: 18 mg/l
Exposure time: 4 h

Skin irritation: Classification: Irritating to skin.
Result: Mild skin irritation

Eye irritation: Classification: Irritating to eyes.
Result: Risk of serious damage to eyes.

Benzene 71-43-2

Acute oral toxicity: LD50 rat
Dose: 930 mg/kg

Acute inhalation toxicity: LC50 rat
Dose: 44 mg/l
Exposure time: 4 h

Skin irritation: Classification: Irritating to skin.
Result: Mild skin irritation
Repeated or prolonged exposure may cause skin irritation and dermatitis, due to degreasing properties of the product.

Eye irritation: Classification: Irritating to eyes.
Result: Risk of serious damage to eyes.

1,2,4-Trimethylbenzene 95-63-6

Acute inhalation toxicity: LC50 rat
Dose: 18 mg/l
Exposure time: 4 h

Skin irritation: Classification: Irritating to skin.
Result: Skin irritation

Eye irritation: Classification: Irritating to eyes.
Result: Eye irritation

| | | |
|--------|-----------|--|
| Sulfur | 7704-34-9 | <u>Acute oral toxicity:</u> LD50 rat |
| | | Dose: 5,001 mg/kg |
| | | <u>Acute dermal toxicity:</u> LD50 rabbit |
| | | Dose: 2,001 mg/kg |
| | | <u>Acute inhalation toxicity:</u> LC50 rat |
| | | Dose: 9.24 mg/l |
| | | Exposure time: 4 h |
| | | <u>Eye irritation:</u> Classification: Irritating to eyes. |
| | | Result: Mild eye irritation |

SECTION 12. ECOLOGICAL INFORMATION

Additional ecological information : Keep out of sewers, drainage areas, and waterways. Report spills and releases, as applicable, under Federal and State regulations.

Component:

| | | |
|-----------------------|----------|--|
| N-hexane | 110-54-3 | <u>Toxicity to fish:</u> |
| | | LC50 |
| | | Species: Pimephales promelas (fathead minnow) |
| | | Dose: 2.5 mg/l |
| | | Exposure time: 96 h |
| | | <u>Acute and prolonged toxicity for aquatic invertebrates:</u> |
| | | EC50 |
| | | Species: Daphnia magna (Water flea) |
| | | Dose: 2.1 mg/l |
| | | Exposure time: 48 h |
| Toluene | 108-88-3 | <u>Toxicity to fish:</u> |
| | | LC50 |
| | | Species: Carassius auratus (goldfish) |
| | | Dose: 13 mg/l |
| | | Exposure time: 96 h |
| | | <u>Acute and prolonged toxicity for aquatic invertebrates:</u> |
| | | EC50 |
| | | Species: Daphnia magna (Water flea) |
| | | Dose: 11.5 mg/l |
| | | Exposure time: 48 h |
| | | <u>Toxicity to algae:</u> |
| | | IC50 |
| | | Species: Selenastrum capricornutum (green algae) |
| | | Dose: 12 mg/l |
| | | Exposure time: 72 h |
| Cyclohexane | 110-82-7 | <u>Acute and prolonged toxicity for aquatic invertebrates:</u> |
| | | EC50 |
| | | Species: Daphnia magna (Water flea) |
| | | Dose: 3.78 mg/l |
| | | Exposure time: 48 h |
| Pentane | 109-66-0 | <u>Acute and prolonged toxicity for aquatic invertebrates:</u> |
| | | EC50 |
| | | Species: Daphnia magna (Water flea) |
| | | Dose: 9.74 mg/l |
| | | Exposure time: 48 h |
| Heptane [and isomers] | 142-82-5 | <u>Toxicity to fish:</u> |
| | | LC50 |
| | | Species: Carassius auratus (goldfish) |
| | | Dose: 4 mg/l |
| | | Exposure time: 24 h |

| | | |
|------------------------|-----------|--|
| | | <u>Acute and prolonged toxicity for aquatic invertebrates:</u> EC50 Species: Daphnia magna (Water flea) Dose: 1.5 mg/l Exposure time: 48 h |
| 1,2,4-Trimethylbenzene | 95-63-6 | <u>Toxicity to fish:</u> LC50 Species: Pimephales promelas (fathead minnow) Dose: 7.72 mg/l Exposure time: 96 h |
| | | <u>Acute and prolonged toxicity for aquatic invertebrates:</u> EC50 Species: Daphnia Dose: 3.6 mg/l Exposure time: 48 h |
| Sulfur | 7704-34-9 | <u>Acute and prolonged toxicity for aquatic invertebrates:</u> EC0 Species: Daphnia magna (Water flea) Dose: > 10,000 mg/l Exposure time: 24 h |

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal : Dispose of container and unused contents in accordance with federal, state and local requirements.

SECTION 14. TRANSPORT INFORMATION

CFR

| | |
|----------------------|--|
| Proper shipping name | : PETROLEUM DISTILLATES, N.O.S. |
| UN-No. | : 1268 |
| Class | : 3 |
| Packing group | : II |
| Hazard inducer | : (Naphtha; Low boiling point naphtha) |

TDG

| | |
|----------------------|--|
| Proper shipping name | : PETROLEUM DISTILLATES, N.O.S. |
| UN-No. | : UN1268 |
| Class | : 3 |
| Packing group | : II |
| Hazard inducer | : (Naphtha; Low boiling point naphtha) |

IATA Cargo Transport

| | |
|--------------------------------------|---|
| UN UN-No. | : UN1268 |
| Description of the goods | : PETROLEUM DISTILLATES, N.O.S. (Naphtha; Low boiling point naphtha) |
| Class | : 3 |
| Packaging group | : II |
| ICAO-Labels | : 3 |
| Packing instruction (cargo aircraft) | : 364 |
| Packing instruction (cargo aircraft) | : Y341 |

IATA Passenger Transport

| | |
|---|---|
| UN UN-No. | : UN1268 |
| Description of the goods | : PETROLEUM DISTILLATES, N.O.S. (Naphtha; Low boiling point naphtha) |
| Class | : 3 |
| Packaging group | : II |
| ICAO-Labels | : 3 |
| Packing instruction (passenger aircraft) | : 353 |
| Packing instruction (passenger aircraft) | : Y341 |

IMDG-Code

| | |
|--------------------------|---|
| UN-No. | : UN 1268 |
| Description of the goods | : PETROLEUM DISTILLATES, N.O.S. (Naphtha; Low boiling point naphtha) |
| Class | : 3 |
| Packaging group | : II |
| IMDG-Labels | : 3 |
| EmS Number | : F-E S-E |
| Marine pollutant | : No |

SECTION 15. REGULATORY INFORMATION

| | |
|--------------|--|
| OSHA Hazards | : Flammable liquid Moderate skin irritant Severe eye irritant Carcinogen Teratogen |
|--------------|--|

| | |
|-------------|---------------------|
| TSCA Status | : On TSCA Inventory |
|-------------|---------------------|

| | |
|------------|--|
| DSL Status | : All components of this product are on the Canadian DSL list. |
|------------|--|

| | |
|----------------------|---|
| SARA 311/312 Hazards | : Fire Hazard Acute Health Hazard Chronic Health Hazard |
|----------------------|---|

| | |
|----------|--|
| SARA III | US. EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III Section 313 Toxic Chemicals (40 CFR 372.65) - Supplier Notification Required |
|----------|--|

| <u>Components</u> | <u>CAS-No.</u> |
|-------------------------------|----------------|
| 1,2,4-Trimethylbenzene | 95-63-6 |
| Benzene | 71-43-2 |
| Ethylbenzene | 100-41-4 |
| Cyclohexane | 110-82-7 |
| Toluene | 108-88-3 |
| N-hexane | 110-54-3 |
| Xylene | 1330-20-7 |

| | |
|----------|---|
| PENN RTK | US. Pennsylvania Worker and Community Right-to-Know Law (34 Pa. Code Chap. 301-323) |
|----------|---|

| <u>Components</u> | <u>CAS-No.</u> |
|------------------------------------|----------------|
| Heptane [and isomers] | 142-82-5 |
| Ethylbenzene | 100-41-4 |
| Benzene | 71-43-2 |
| 1,2,4-Trimethylbenzene | 95-63-6 |
| Sulfur | 7704-34-9 |
| Pentane | 109-66-0 |
| Naphtha; Low boiling point naphtha | 8030-30-6 |
| Xylene | 1330-20-7 |
| N-hexane | 110-54-3 |
| Toluene | 108-88-3 |
| Cyclohexane | 110-82-7 |

MASS RTK

US. Massachusetts Commonwealth's Right-to-Know Law (Appendix A to 105 Code of Massachusetts Regulations Section 670.000)

| <u>Components</u> | <u>CAS-No.</u> |
|------------------------------------|----------------|
| Heptane [and isomers] | 142-82-5 |
| Ethylbenzene | 100-41-4 |
| Benzene | 71-43-2 |
| 1,2,4-Trimethylbenzene | 95-63-6 |
| Sulfur | 7704-34-9 |
| Naphtha; Low boiling point naphtha | 8030-30-6 |
| Xylene | 1330-20-7 |
| N-hexane | 110-54-3 |
| Toluene | 108-88-3 |
| Cyclohexane | 110-82-7 |

NJ RTK

US. New Jersey Worker and Community Right-to-Know Act (New Jersey Statute Annotated Section 34:5A-5)

| <u>Components</u> | <u>CAS-No.</u> |
|------------------------------------|----------------|
| Heptane [and isomers] | 142-82-5 |
| Ethylbenzene | 100-41-4 |
| Benzene | 71-43-2 |
| 1,2,4-Trimethylbenzene | 95-63-6 |
| Sulfur | 7704-34-9 |
| Naphtha; Low boiling point naphtha | 8030-30-6 |
| Xylene | 1330-20-7 |
| N-hexane | 110-54-3 |

Toluene 108-88-3

Cyclohexane 110-82-7

CERCLA SECTION 103 and SARA SECTION 304 (RELEASE TO THE ENVIRONMENT)

The CERCLA definition of hazardous substances contains a "petroleum exclusion" clause which exempts crude oil. Fractions of crude oil, and products (both finished and intermediate) from the crude oil refining process and any indigenous components of such from the CERCLA Section 103 reporting requirements. However, other federal reporting requirements, including SARA Section 304, as well as the Clean Water Act may still apply.

California Prop. 65 : WARNING! This product contains a chemical known to the State of California to cause cancer.

Ethylbenzene 100-41-4

Benzene 71-43-2

WARNING! This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

Toluene 108-88-3

Benzene 71-43-2

SECTION 16. OTHER INFORMATION

Further information

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

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Revision Date : 01/27/2011

79, 80, 81, 83, 165, 264, 318, 1017, 1018, 1019, 1020, 1021, 1027, 1032, 1055, 1136, 1716

PERMIT TO OPERATE

Number 923-3

EQUIPMENT OWNER-OPERATOR:

Phillips 66 Pipeline LLC
18781 El Camino Real
Atascadero, CA 93422

EQUIPMENT LOCATION:

Santa Margarita Pump Station - 18781 El Camino Real, Santa Margarita

EQUIPMENT DESCRIPTION:

Backup generator and fire pump system for a petroleum pipeline station consisting of:

- a. One (1) 100 kW Caterpillar, Model SR4, generator driven by a 156 hp, diesel fueled, Caterpillar Model 3208 engine, 596 engine hours on May 7, 2004.
- b. One (1) main fire pump driven by a 287 hp, diesel fueled, Caterpillar Model 3306 turbo-charged engine, 550 engine hours on May 7, 2004.
- c. One (1) fire pump driven by a 125 hp, diesel fueled, Caterpillar Model 3208 engine, 1,226 engine hours on May 7, 2004.

CONDITIONS:

1. Non-Emergency Operation
 - a. Non-emergency operation of the generator engine shall be limited to maintenance and performance testing only and shall not exceed twenty (20) hours per engine per calendar. Operation for emissions testing required by the District shall not be limited by this condition.
 - b. Non-emergency operation of the fire pump engines shall not exceed the number of hours necessary to comply with the testing

- requirements of National Fire Protection Association (NFPA) 25 - Standard for the Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems, 1998 edition, as referenced through NFPA 13 - Standard for the Installation of Sprinkler Systems, 1999 edition, in the 2001 California Building Code, 24 CCR part 2, vol. 2, chapter 35, Uniform Building Code Standards (the number of necessary hours is nominally 26 hours per year. Proof of the operating requirements for the fire pump engines shall be maintained onsite. Operation for emissions testing required by the District shall not be limited by this condition.
- c. The Air Pollution Control Officer (APCO) shall be notified in writing within seven (7) days of exceeding the yearly non-emergency operation limit.
 - d. An emergency is defined as failure of normal electrical power service that is beyond the control of the permit holder and does not include voluntarily disconnecting from utility grid power or as a fire that requires the use of the fire suppression system.
2. Only diesel fuel that meets the California Air Resources Board's specifications for on-road use shall be used to fuel the engine(s) unless otherwise approved by the APCO. Records of the fuel purchases shall be maintained and include a fuel specification sheet that shows compliance with this condition.
 3. Visible emissions from the engine exhaust shall not exceed Ringelmann No. 1 or twenty percent (20%) opacity for periods aggregating more than three (3) minutes in any hour.
 4. A non-resettable hour meter for each engine shall be installed and maintained unless an APCO approved alternative tracking procedure is approved.
 5. An operating log for the current calendar year shall be maintained for each engine on a monthly basis. Entries shall also be made for any day that the engine is operated and for any day that the engine receives fuel. The logs shall be retained for at least three (3) years and shall include the following data:
 - a. Operating mode: emergency, maintenance, or District required testing
 - b. Engine hour meter reading at start-up,
 - c. Engine hour reading at shutdown,
 - d. Operating hours for the calendar day,
 - e. Running total calendar year to date operating hours,
 - f. Running total calendar year to date operating hours in maintenance mode,
 - g. Running total calendar year to date operating hours in emergency mode,
 - h. Estimated fuel use for the day in gallons,
 - i. Running total calendar year to date fuel use in gallons, and
 - j. Fuel purchased in gallons.
 6. Within fourteen (14) days of a request, the following information shall be submitted to the APCO for the previous calendar year:
 - a. Maintenance operating hours,
 - b. Emergency operating hours,
 - c. District required testing operating hours,
 - d. Total engine operating hours,
 - e. Total fuel usage, and
 - f. Copies of all fuel purchase records.
 7. This equipment shall be operated and maintained in accordance with the manufacturer's recommendations and the information presented in the application under which this permit was issued.
 8. If the APCO determines that the operation of this equipment is causing a public nuisance, the owner/operator shall take immediate action and eliminate the nuisance.

9. The APCO shall be notified and authorization obtained prior to making any changes in operating procedures, equipment, or materials used which have the potential to increase the emission of any air contaminant or which would change the equipment description or the applicability of a permit condition.
10. All information needed to estimate air pollution emissions shall be provided to the District upon request. This information may consist of, but is not limited to: throughput data, process variables, device characteristics, and pollutant release characteristics.
11. This permit is not transferable to a new owner or location without the APCO's approval. A change of ownership application shall be submitted to the APCO at least ten (10) working days prior to any change in the person or agency that is responsible for the operation of the equipment described above. An authority to construct application must be submitted and approved by the APCO prior to moving the permitted equipment to a new location.

May 2, 2012

ISSUANCE DATE

July (annually)

ANNIVERSARY

LARRY R. ALLEN
Air Pollution Control Officer

GARY E. WILLEY
Manager, Engineering Division

Application Number: 5741

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PERMIT TO OPERATE

Number 404-9

EQUIPMENT OWNER-OPERATOR:

Phillips 66 Pipeline LLC
18781 El Camino Real
Atascadero, CA 93422

EQUIPMENT LOCATION:

Santa Margarita Pump Station - 18781 El Camino Real, Santa Margarita

EQUIPMENT DESCRIPTION:

Petroleum Storage Tank Farm consisting of:

- a. External Floating Roof, Welded Shell Storage Tanks with Double Seals

| Tank # | Nom. Cap. | Circum. | Seal Description |
|--------|-------------|---------|--|
| 55422 | 47,000 bbl | 283' | Mechanical shoe primary and zero gap secondary seals |
| 55408 | 51,000 bb | 314' | Mechanical shoe primary and zero gap secondary seals |
| 110404 | 103,000 bbl | 377' | HMT wiper and rim mounted secondary seals |
| 175420 | 169,000 bbl | 509' | Mechanical shoe primary and zero gap secondary seals |

- b. Carbon adsorption vapor control system for the pressure relief valves of Tanks 55408 and 55422 when storing pressure distillate consisting of: vented collection box, 4 inch flexible hose, 140 cfm Class I atmosphere blower, and one (1) 2,000 lb carbon canister or multiple 500 lb carbon canisters.
- c. Exempt equipment
Drag Reducing Agent (DRA) system including its associated 6,000 gallons storage tank.

CONDITIONS:

1. The total emission rate of volatile organic compounds from all permitted equipment at the Santa Margarita pump station, including tanks, the boilers, and the engines listed on other District permits shall not exceed 99.1 tons per rolling 12-month period. A rolling 12-month period shall be considered a period of twelve consecutive months determined on a rolling basis with a new 12-month period beginning on the first day of each calendar month. The emission rate determination shall be consistent with the methodology and assumptions that were used to evaluate the application under which this condition was issued.
2. All valves, pump seals, tanks, and floating roof seals shall be properly maintained and in good operating order.
3. All gauging and sampling ports shall remain tightly closed except when gauging or sampling is taking place.
4. There shall be no holes, tears, or other openings in the primary or secondary wiper seals, seal fabric, or seal envelope.
5. Storage tanks 55422, 55408, and 110404 shall not store organic liquids with a true vapor pressure of 11 psia or greater. Tank 175420 shall not store organic liquids with a true vapor pressure greater than 1.5 psia.
6. Secondary seals shall not extend above the top edge of the tank shell.
7. The operator shall submit a written pressure distillate (PD) Plan, designed to minimize nuisance odors, for the APCO's approval prior to draining any PD tank to the point that the floating roof rests on the internal support structures. The operator shall also submit a Cleaning Plan to minimize odors from any tank cleaning at least 30 days prior to that cleaning. The Cleaning Plan must address all phases of the process including tank draw down, initial ventilation, tank degassing, vacuum truck removal of residual material, cleaning, and the storage and handling of all material contaminated with the stored product. Both plans shall include emissions calculations from the affected process.
8. Cross sectional drawings of each tank seal shall be made available to the APCO upon request.
9. The operator shall measure the gaps between the wall of the tank and the primary seal at least once every ten (10) years for tanks 55422, 55408, 110404, and 175420. Measurement of the gaps between the tank wall and the secondary seal for tanks 55422, 55408, 110404, and 175420 shall be made at least once a year.
10. The results of each tank seal inspection performed under condition 9 above shall be reported in writing to the APCO within 30 calendar days after the inspection date.
11. For tanks 55422, 55408, 110404, and 175420:
 - a. The cumulative length of all gaps between the primary seal and the tank shell exceeding 1/2 inch shall not be more than 10 percent, and exceeding 1/8 inch shall not be more than 40 percent of the tank circumference.
 - b. No gap between the tank shell and the primary seal shall exceed 1.5 inches; no continuous gap greater than 1/8 inch shall exceed 10 percent of the circumference of the tank.

- c. Annually, the operator shall make the primary seal available for inspection at four (4) locations to be selected by the APCO.
- 12. For tanks 55422, 55408, 110404, and 175420, there shall be no visible or measurable gap between the tank shell and the secondary seal, excluding gaps less than two inches (2") from vertical weld seams.
- 13. Any gap that exceeds the amount allowed under this permit shall be repaired within 45 days. A 30-day extension may be requested from the Air Pollution Control Officer if the discovered failure cannot be repaired within 45 days.
- 14. This equipment shall be operated in compliance with all District Rules and Regulations.
- 15. Within twenty-four hours of storing any pressure distillate in Tanks 55408 and 55422, the pressure relief valve odor control systems for Tanks 55408 and 55422 shall be connected and the operator shall comply with the following:
 - a. The outlet of the carbon system shall be monitored as specified in the application's System Monitoring Plan or as subsequently approved by the APCO. Monitoring shall occur during the periods of highest vapor generation and if possible, during relief valve operation.
 - b. The carbon vessel shall be replaced and the APCO notified within 24 hours of breakthrough. Breakthrough shall be defined as hydrogen sulfide emissions of greater than seven (7) parts per million by volume (ppmv). If stain tubes are used for monitoring, the upper sensitivity shall not be below 10 ppmv or above 50 ppmv.
- 16. Standard Conditions for Tank Cleaning and Pipeline Purges:
 - a. Petroleum material storage tanks, with a capacity of 40,000 gallons or greater, and pressure distillate (PD) storage tanks of any size shall not be cleaned or degassed without prior APCO approval.
 - b. The operator shall submit a Tank Cleaning Plan, designed to minimize nuisance odors, at least 30 calendar days prior to the cleaning of any petroleum material storage tank, with a capacity of 40,000 gallons or greater, and pressure distillate storage tanks of any size. That plan shall:
 - 1) Address all phases of the process which will occur on-site including tank draw down, initial ventilation, tank degassing, vacuum truck removal of residual material, sludge handling and dewatering, cleaning, and the storage and handling of all material contaminated with the stored product; and
 - 2) Include emission estimates for all phases of work and equipment involved, with the exception of engines used for welders or air compressors, or as the motive power for mobile equipment.

Multiple tank cleaning operations that will occur within a single ninety (90) day period may be consolidated into the same plan. The APCO reserves the right to require a permit or portable equipment registration for any equipment proposed for use in the tank cleaning if that equipment is not exempt under District Rule 201, Equipment Not Requiring a Permit.

- c. After the initial submittal of a Tank Cleaning Plan, any changes to that plan must be submitted as soon as possible to the APCO. Any change submitted with a lead-time of less than one (1) working day may result in disapproval for the lack of time available to assess the effects of the change.
- d. Petroleum material transportation pipelines shall not be purged or degassed without prior APCO approval.
- e. The operator shall submit a Pipeline Purging Plan, designed to minimize nuisance odors, at least thirty (30) calendar days prior to the purging of any petroleum material transportation pipeline. That plan shall:
 - 1) Include pipeline internal diameter, designation, material normally conveyed, a large scale map of the upstream and downstream locations between which the purge is to occur, the distance in feet between those two points, and a small scale map of the pipeline's route;
 - 2) Address all phases of the process including the estimated length of time over which the purge will occur, the starting date and time, and the method of odor control;
 - 3) The location, size, anticipated length of stay, and Rule 425, Petroleum Storage Tanks, compliance status of any temporary storage vessels;
 - 4) The location, anticipated length of operation, and the following operating parameters for any odor or emission control device:
 - i) Thermal oxidizers: Flow rate of pipeline vapors to the control equipment, control efficiency and capacity, operating temperature, auxiliary fuel requirements and consumption rate, expected operating characteristics, and auxiliary equipment requirements, e.g. motor-generators;
 - ii) Carbon adsorbers: Flow rate of pipeline vapors to the control equipment, control efficiency and capacity, breakthrough detection method, and actions to be taken upon breakthrough discovery.
 - 5) An estimate of the composition of the pipeline vapors to include hydrogen sulfide, benzene, and total petroleum hydrocarbon in volume percent or ppmv; and
 - 6) Include emission estimates for all phases of work and equipment involved, with the exception of engines used for welders or air compressors, or as the motive power for mobile equipment.

Multiple or sequential pipeline purges that will occur within a single ninety (90) day period may be consolidated into the same plan. The APCO reserves the right to require a permit or portable equipment registration for any equipment proposed for use in the pipeline purging if that equipment is not exempt under District Rule 201, Equipment Not Requiring a Permit.

- f. After the initial submittal of a Pipeline Purging Plan, any changes to that plan must be submitted as soon as possible to the APCO. Any change submitted with a lead-time of less than one (1) working day may result in disapproval for the lack of time available to

assess the effects of the change.

- g. The APCO shall be notified no later than two (2) working days prior to any pipeline purging event.
- 17. If the APCO determines that the operation of this equipment is causing a public nuisance, the owner/operator shall take immediate action to eliminate the nuisance.
- 18. The APCO shall be notified of any changes in operating procedures, equipment, or materials used which have the potential to increase the emission of any air contaminant.
- 19. All information necessary to estimate air pollutant emissions shall be provided to the District upon request. This information may consist of, but is not limited to, process and device characteristics, throughput, and pollutant release characteristics.
- 20. This equipment shall be maintained and operated in accordance with the manufacturer's recommendations and the information presented in the application under which this permit was granted.
- 21. This permit is not transferable. A change of ownership application shall be submitted to the APCO at least ten (10) working days prior to any change in the person, partnership, company, corporation, or agency that is responsible for the operation of the equipment described above.

May 2, 2012

ISSUANCE DATE

July (annually)

ANNIVERSARY

LARRY R. ALLEN
Air Pollution Control Officer

GARY E. WILLEY
Manager, Engineering Division

Application Number: 5739

PERMIT TO OPERATE

Number 556-7

EQUIPMENT OWNER-OPERATOR:

Phillips 66 Pipeline LLC
18781 El Camino Real
Atascadero, CA 93422

EQUIPMENT LOCATION:

Santa Margarita Pump Station - 18781 El Camino Real, Santa Margarita

EQUIPMENT DESCRIPTION:

Petroleum pipeline pump drivers consisting of four natural gas fired engines, each with Johnson/Matthey 3-way catalysts, and oxygen feedback controllers:

- a. Two 330 hp Caterpillar G-379NA engines, designated G-11 and G-12
- b. Two 575 hp Enterprise GSG-6 engines designated G-1 and G-2, with air-to-fuel ratio controllers, carburetors, and an integrated Continental Controls Corporation system and custom manifold.

CONDITIONS:

1. The total emission rate of nitrogen oxides (calculated as nitrogen dioxide) from all permitted emissions sources at this facility including the engines listed above shall not exceed 96.8 tons per rolling 12 month period. The emission rate determination shall be consistent with the methodology and assumptions that were used to evaluate the application under which this condition was issued.
2. Oxides of nitrogen (NO_x) emissions shall not exceed 50 parts per million by volume referenced at dry stack-gas conditions and 15 percent by volume stack-gas oxygen (ppmv dry at 15% O₂).

3. Carbon monoxide (CO) emissions shall not exceed 4,500 ppmv dry at 15% O₂.
4. Source testing shall be conducted to demonstrate compliance with the emission limits of this permit at least every 8760 hours of engine operation or once every three calendar years, whichever comes first. A source test plan shall be submitted to the Air Pollution Control Officer (APCO) at least 30 calendar days prior to testing. All testing, plans, and reports shall comply with the District's Source Test Policy.
5. Visible emissions from the exhaust shall not exceed Ringelmann Number 1 or twenty percent (20%) opacity for periods aggregating more than three (3) minutes in any hour.
6. The internal combustion engines shall only use natural gas as a fuel.
7. An inspection log shall be maintained on a monthly basis that includes the following data:
 - a. Date and results of each engine inspection,
 - b. A summary of any preventive or corrective maintenance taken,
 - c. The total hours of operation for each engine,
 - d. The quantity of fuel used each month, and a total for the current rolling 12-month period,
 - e. Results of the quarterly emissions monitoring.
8. Inspections shall be conducted every quarter or after every 2,000 hours of engine operation. In no event shall the frequency of inspection be less than once per year.
9. The engine operator inspection plan, inspection log, and all other records shall be maintained for a period of three (3) years and shall be made available to the District upon request.
10. This equipment shall be operated and maintained in accordance with the manufacturer's recommendations and the information presented in the application for this Permit to Operate.
11. If the APCO determines that the operation of this equipment is causing a public nuisance, the owner/operator shall take immediate action to eliminate the nuisance.
12. The APCO shall be notified and authorization obtained prior to making any changes in operating procedures, equipment, or materials used which have the potential to increase the emission of any air contaminant or which would change the equipment description or the applicability of a permit condition.
13. All information necessary to estimate air pollutant emissions shall be provided to the District upon request. This information may consist of, but is not limited to, process and device characteristics, throughput, and pollutant release characteristics.
14. This permit is not transferable to a new owner or location without the APCO's approval. A change of ownership application shall be submitted to the APCO at least ten (10) working days prior to any change in the person or agency that is responsible for the operation of the equipment described above. An authority to construct application must be submitted and approved by the APCO prior to moving the permitted equipment to a new location.

May 2, 2012

ISSUANCE DATE

July (annually)

ANNIVERSARY

LARRY R. ALLEN
Air Pollution Control Officer

GARY E. WILLEY
Manager, Engineering Division

Application Number: 5740

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PERMIT TO OPERATE

Number 565-4

EQUIPMENT OWNER-OPERATOR:

Phillips 66 Pipeline LLC
18781 El Camino Real
Atascadero, CA 93422

EQUIPMENT LOCATION:

Shandon Pump Station, 17525 Highway 46 East, Shandon

EQUIPMENT DESCRIPTION:

Organic liquid storage tank, 35,000 bbl capacity, welded shell, 80 foot diameter, 43 foot height, 251.3 foot circumference. Pontoon floating roof, metallic shoe primary seal, zero gap secondary wiper seal and associated valves, flanges, pumps and lines (Company Designation Number 35206).

CONDITIONS:

1. All valves, pump seals, tanks, and floating roof seals shall be properly maintained and kept in good operating order.
2. All roof openings except pressure-vacuum relief valves and automatic bleeder vents, shall provide a projection at least two (2) inches below the liquid surface. All openings and fittings shall be covered and shall have gaskets with no visible gaps.
3. All gauging and sampling ports shall remain tightly closed except when gauging or sampling is taking place.
4. There shall be no holes, tears or other openings in the primary or secondary wiper seals, seal fabric, or seal envelope.
5. The true vapor pressure of organic liquids stored shall not exceed 1.5 psia.

6. Annual throughput of organic liquid product through the tank shall not exceed 2,200,000 barrels.
7. Secondary seals shall not extend above the top edge of the tank shell.
8. The operator shall measure the gaps between the wall of the tank and the primary seal at least once every ten (10) years. Measurement of the gaps between the tank wall and the secondary seal shall be made at least once a year.
9. The results of each tank seal inspection performed under Condition Number 8, above shall be reported in writing to the APCO within 30 calendar days after the inspection date.
10. If any seal gap measurements exceed specifications listed below, a report of repair action shall be made within thirty (30) days.
11. The cumulative length of all gaps between the primary seal and the tank shell exceeding one-half inch ($\frac{1}{2}$ ") shall not be more than ten percent (10%), and exceeding one-eighth inch ($\frac{1}{8}$ ") shall not be more than forty percent (40%) of the tank circumference.
12. No gap between the tank shell and the primary seal shall exceed one and one-half inches ($1\frac{1}{2}$ "); no continuous gap greater than one-eighth inch ($\frac{1}{8}$ ") shall exceed ten percent (10%) of the circumference of the tank.
13. There shall be no visible or measurable gap between the tank shell and the secondary seal, excluding gaps less than two inches from vertical weld seams.
14. Any gap that exceeds the amount listed in Conditions 11 through 13 above shall be repaired within forty-five (45) days. A thirty (30) day extension may be requested from the APCO if the discovered failure cannot be repaired within forty-five (45) days.
15. The secondary seal shall allow easy insertion of probes up to one and one-half inches ($1\frac{1}{2}$ ") in width in order to measure gaps in the primary seal.

Standard Conditions for Tank Cleaning and Pipeline Purges:

16. Petroleum material storage tanks, with a capacity of 40,000 gallons or greater, and pressure distillate (PD) storage tanks of any size shall not be cleaned or degassed without prior APCO approval.
17. The operator shall submit a Tank Cleaning Plan, designed to minimize nuisance odors, at least 30 calendar days prior to the cleaning of any petroleum material storage tank, with a capacity of 40,000 gallons or greater, and pressure distillate storage tanks of any size. That plan shall:
 - a. Address all phases of the process which will occur on-site including tank draw down, initial ventilation, tank degassing, vacuum truck removal of residual material, sludge handling and dewatering, cleaning, and the storage and handling of all material contaminated with the stored product; and
 - b. Include emission estimates for all phases of work and equipment involved, with the exception of engines used for welders or air compressors, or as the motive power for mobile equipment.

Multiple tank cleaning operations that will occur within a single ninety (90) day period may be consolidated into the same plan. The APCO reserves the right to require a permit or portable equipment registration for any equipment proposed for use in the tank cleaning if that equipment is not exempt under District

Rule 201, Equipment Not Requiring a Permit.

18. After the initial submittal of a Tank Cleaning Plan, any changes to that plan must be submitted as soon as possible to the APCO. Any change submitted with a lead-time of less than one (1) working day may result in disapproval for the lack of time available to assess the effects of the change.
 19. Petroleum material transportation pipelines shall not be purged or degassed without prior APCO approval.
 20. The operator shall submit a Pipeline Purging Plan, designed to minimize nuisance odors, at least thirty (30) calendar days prior to the purging of any petroleum material transportation pipeline. That plan shall:
 - a. Include pipeline internal diameter, designation, material normally conveyed, a large scale map of the upstream and downstream locations between which the purge is to occur, the distance in feet between those two points, and a small scale map of the pipeline's route;
 - b. Address all phases of the process including the estimated length of time over which the purge will occur, the starting date and time, and the method of odor control;
 - c. The location, size, anticipated length of stay, and Rule 425, Petroleum Storage Tanks, compliance status of any temporary storage vessels;
 - d. The location, anticipated length of operation, and the following operating parameters for any odor or emission control device.
 - 1) Thermal oxidizers: Flow rate of pipeline vapors to the control equipment, control efficiency and capacity, operating temperature, auxiliary fuel requirements and consumption rate, expected operating characteristics, and auxiliary equipment requirements, e.g. motor- generators;
 - 2) Carbon adsorbers: Flow rate of pipeline vapors to the control equipment, control efficiency and capacity, breakthrough detection method, and actions to be taken upon breakthrough discovery.
 - e. An estimate of the composition of the pipeline vapors to include hydrogen sulfide, benzene, and total petroleum hydrocarbon in volume percent or ppmv; and
 - f. Include emission estimates for all phases of work and equipment involved, with the exception of engines used for welders or air compressors, or as the motive power for mobile equipment.
- Multiple or sequential pipeline purges that will occur within a single ninety (90) day period may be consolidated into the same plan. The APCO reserves the right to require a permit or portable equipment registration for any equipment proposed for use in the pipeline purging if that equipment is not exempt under District Rule 201, Equipment Not Requiring a Permit.
21. After the initial submittal of a Pipeline Purging Plan, any changes to that plan must be submitted as soon as possible to the APCO. Any change submitted with a lead-time of less than one (1) working day may result in disapproval for the lack of time available to assess the effects of the change.
 22. The APCO shall be notified no later than two (2) working days prior to any pipeline purging event.

23. This equipment shall be operated and maintained in accordance with the manufacturer's recommendations and the information presented in the application under which this permit was granted.
24. If the Air Pollution Control Officer (APCO) determines that the operation of this equipment is causing a public nuisance, the owner/operator shall take immediate action and eliminate the nuisance.
25. The APCO shall be notified and authorization obtained prior to making any changes in operating procedures, equipment, or materials used which have the potential to increase the emission of any air contaminant or which would change the equipment description or the applicability of a permit condition.
26. All information needed to estimate air pollution emissions shall be provided to the District upon request. This information may consist of, but is not limited to: throughput data, process variables, device characteristics, and pollutant release characteristics.

27. This permit is not transferable. A change of ownership application shall be submitted to the APCO at least ten (10) working days prior to any change in the person, partnership, company, corporation, or agency that is responsible for the operation of the equipment described above.

May 2, 2012

ISSUANCE DATE

July (annually)

ANNIVERSARY

LARRY R. ALLEN
Air Pollution Control Officer

GARY E. WILLEY
Manager, Engineering Division

Application Number: 5742

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PERMIT TO OPERATE

Number 921-3

EQUIPMENT OWNER-OPERATOR:

Phillips 66 Pipeline LLC
18781 El Camino Real
Atascadero, CA 93422

EQUIPMENT LOCATION:

Shandon Pump Station, 17525 Highway 46 East, Shandon

EQUIPMENT DESCRIPTION:

Backup generator and fire pump system for a petroleum pipeline station consisting of:

- a. One (1) 100 kW Caterpillar, Model SR4, generator driven by a 156 hp, diesel fueled, Caterpillar Model 3208 engine, 288 engine hours on May 7, 2004.
- b. One (1) fire pump driven by a 176 hp, diesel fueled, Caterpillar Model 3208 engine, 495 engine hours on May 7, 2004.

CONDITIONS:

1. Non-Emergency Operation
 - a. Non-emergency operation of the generator engine shall be limited to maintenance and performance testing only and shall not exceed twenty (20) hours per engine per calendar. Operation for emissions testing required by the District shall not be limited by this condition.
 - b. Non-emergency operation of the fire pump engine shall not exceed the number of hours necessary to comply with the testing requirements of National Fire Protection Association (NFPA) 25 - Standard for the Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems, 1998 edition, as referenced through NFPA 13

- Standard for the Installation of Sprinkler Systems, 1999 edition, in the 2001 California Building Code, 24 CCR part 2, vol. 2, chapter 35, Uniform Building Code Standards (the number of necessary hours is nominally 26 hours per year). Proof of the operating requirements for the fire pump engine shall be maintained onsite. Operation for emissions testing required by the District shall not be limited by this condition.
- c. The Air Pollution Control Officer (APCO) shall be notified in writing within seven (7) days of exceeding the yearly non-emergency operation limit.
- d. An emergency is defined as failure of normal electrical power service that is beyond the control of the permit holder and does not include voluntarily disconnecting from utility grid power.
- 2. Only diesel fuel that meets the California Air Resources Board's specifications for on-road use shall be used to fuel the engine(s) unless otherwise approved by the APCO. Records of the fuel purchases shall be maintained and include a fuel specification sheet that shows compliance with this condition.
- 3. Visible emissions from the engine exhaust shall not exceed Ringelmann No. 1 or twenty percent (20%) opacity for periods aggregating more than three (3) minutes in any hour.
- 4. A non-resettable hour meter for each engine shall be installed and maintained unless an APCO approved alternative tracking procedure is approved.
- 5. An operating log for the current calendar year shall be maintained for each engine on a monthly basis. Entries shall also be made for any day that the engine is operated and for any day that the engine receives fuel. The logs shall be retained for at least three (3) years and shall include the following data:
 - a. Operating mode: emergency, maintenance, or District required testing
 - b. Engine hour meter reading at start-up,
 - c. Engine hour reading at shutdown,
 - d. Operating hours for the calendar day,
 - e. Running total calendar year to date operating hours,
 - f. Running total calendar year to date operating hours in maintenance mode,
 - g. Running total calendar year to date operating hours in emergency mode,
 - h. Estimated fuel use for the day in gallons,
 - i. Running total calendar year to date fuel use in gallons, and
 - j. Fuel purchased in gallons.
- 6. Within fourteen (14) days of a request, the following information shall be submitted to the APCO for the previous calendar year:
 - a. Maintenance operating hours,
 - b. Emergency operating hours,
 - c. District required testing operating hours,
 - d. Total engine operating hours,
 - e. Total fuel usage, and
 - f. Copies of all fuel purchase records.
- 7. This equipment shall be operated and maintained in accordance with the manufacturer's recommendations and the information presented in the application under which this permit was issued.
- 8. If the APCO determines that the operation of this equipment is causing a public nuisance, the owner/operator shall take immediate action and eliminate the nuisance.

9. The APCO shall be notified in writing before any changes are made to operating procedures, equipment, or materials used which have the potential to increase the emission of any air contaminant.
10. This permit is not transferable to a new owner or location without the APCO's approval. A change of ownership application shall be submitted to the APCO at least ten (10) working days prior to any change in the person or agency that is responsible for the operation of the equipment described above. An authority to construct application must be submitted and approved by the APCO prior to moving the permitted equipment to a new location.

May 2, 2012

ISSUANCE DATE

July (annually)

ANNIVERSARY

LARRY R. ALLEN
Air Pollution Control Officer

GARY E. WILLEY
Manager, Engineering Division

Application Number: 5744

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PERMIT TO OPERATE

Number 583-5

EQUIPMENT OWNER-OPERATOR:

Phillips 66 Pipeline LLC
18781 El Camino Real
Atascadero, CA 93422

EQUIPMENT LOCATION:

Shandon Pump Station, 17525 Highway 46 East, Shandon

EQUIPMENT DESCRIPTION:

Petroleum pipeline pump drivers consisting of: two natural gas fired Caterpillar G-379NA engines, 330 hp; with Johnson-Matthey three way catalyst and Dynalco air to fuel ratio controller.

CONDITIONS:

1. Oxides of nitrogen (NO_x) emissions shall not exceed 50 parts per million by volume referenced at dry stack-gas conditions and 15 percent by volume stack-gas oxygen (ppmv dry at 15% O₂).
2. Carbon monoxide (CO) emissions shall not exceed 4,500 ppmv dry at 15% O₂.
3. Source testing shall be conducted to demonstrate compliance with the emission limits of this permit at least every 8760 hours of engine operation or once every three calendar years, whichever comes first. A source test plan shall be submitted to the APCO at least 30 calendar days prior to testing. All testing, plans, and reports shall comply with the District's Source Test Policy.
4. Visible emissions from the exhaust shall not exceed Ringelmann Number 1 or twenty percent (20%) opacity for periods aggregating more than three (3) minutes in any hour.
5. The internal combustion engine(s) shall only use natural gas as a fuel.
6. An inspection log shall be maintained on a monthly basis that includes the following data:

- a. Date and results of each engine inspection,
 - b. A summary of any preventive or corrective maintenance taken,
 - c. The total hours of operation for each engine,
 - d. The quantity of fuel used,
 - e. Results of the quarterly emissions monitoring.
7. Inspections shall be conducted every quarter or after every 2,000 hours of engine operation. In no event shall the frequency of inspection be less than once per year.
 8. The engine operator inspection plan, inspection log, and all other records shall be maintained for a period of three (3) years and shall be made available to the District upon request.
 9. This equipment shall be operated and maintained in accordance with the manufacturer's recommendations and the information presented in the application for this Permit to Operate.
 10. If the Air Pollution Control Officer (APCO) determines that the operation of this equipment is causing a public nuisance, the owner/operator shall take immediate action and eliminate the nuisance.
 11. The APCO shall be notified and authorization obtained prior to making any changes in operating procedures, equipment, or materials used which have the potential to increase the emission of any air contaminant or which would change the equipment description or the applicability of a permit condition.
 12. All information needed to estimate air pollution emissions shall be provided to the District upon request. This information may consist of, but is not limited to: throughput data, process variables, device characteristics, and pollutant release characteristics.
 13. This permit is not transferable. A change of ownership application shall be submitted to the APCO at least ten (10) working days prior to any change in the person, partnership, company, corporation, or agency that is responsible for the operation of the equipment described above.

May 2, 2012
ISSUANCE DATE

July (annually)
ANNIVERSARY

LARRY R. ALLEN
Air Pollution Control Officer

GARY E. WILLEY
Manager, Engineering Division

Application Number: 5743

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